



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,975	09/06/2001	Roland Burkle	WEI0025	4324

7590

12/01/2004

John F Hoffman
Baker & Daniels
Suite 800
111 East Wayne Street
Fort Wayne, IN 46802

EXAMINER

SIMONE, CATHERINE A

ART UNIT PAPER NUMBER

1772

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,975

Applicant(s)

BURKLE ET AL.

Examiner

Catherine Simone

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 25-86 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 25-86 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/31/04 has been entered.

Withdrawn Rejections

2. The 35 U.S.C. 103 rejection of claims 1-12, 25-35, 37-52, 54-59, 61 and 62 over Bosma et al. of record in the Office Action mailed 4/2/04, Pages 2-5, Paragraph #3 has been withdrawn due to the Applicants amendment filed 8/31/04.

3. The 35 U.S.C. 103 rejection of claims 13, 36, 53 and 60 over Bosma et al. in view of Dumbaugh of record in the Office Action mailed 4/2/04, Pages 5-6, Paragraph #4 has been withdrawn due to the Applicants amendment filed 8/31/04.

New Rejections

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1772

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. **Claims 1, 5-7, 9, 11, 12, 25-29, 34, 35, 37, 41-43, 45, 49-52, 54-57, 61-63, 67-69, 71, 73, 75-79, 84 and 85** are rejected under 35 U.S.C. 102(a) as being anticipated by Burroughes et al. (GB 2 335 884).

Regarding **claims 1, 12, 37, 52, 61 and 63**, Burroughes et al. discloses a glass/plastic composite film for use in electronic components and devices such as displays, the composite film comprising a glass film having opposed side surfaces and a thickness of between 10 μm and 500 μm (see page 2, paragraph 2, lines 1-3) and a non-self supporting polymer coating applied on at least one of the side surfaces of the glass film with a thickness of between 1 μm and 200 μm (see page 5, paragraph 6), with the polymer coating being directly applied to the at least one of the side surfaces (see page 6, paragraph 7), and wherein at least one side of the composite film inherently has an optical retardation that is not more than 20 nm, since the polymer coating consists of similar materials (see page 6, paragraph 2) and is applied directly on the glass film by a continuous process (see page 6, paragraph 7) similar to that of the present invention, and further the polymer coating consists essentially of at least one of a silicone polymer, polycarbonate, polyether-sulphone, polyacrylate, polyarylate, cyclo-olefin polymer (see page 6, paragraph 2). Regarding **claims 5, 41 and 67**, note the glass thickness is 10 to 400 μm (see page 5, paragraph 5). Regarding **claims 6, 42 and 68**, note the thickness of the polymer coating is 2 to 100 μm (see page 5, paragraph 6). Regarding **claims 7, 43 and 69**, note the polymer coating covers at least one edge of the glass film (see page 8, paragraph 2). Regarding **claims 9, 45 and 71**, the transmission of the glass/composite film is inherently more than 90% of the transmission of the glass film when the glass film is uncoated and the haziness caused by the polymer layer

increases the haziness of the composite film by less than 1% in comparison to the glass film when the glass film is uncoated, since the composite film is made up of similar materials and is produced in a similar manner compared to that of the present invention. Regarding **claims 11, 49 and 73**, note the composite film is inherently temperature stable up to 130°C, and up to 140°C in the case of short-term heating, since it is made up of similar materials and is produced in a similar manner to that of the present invention. Regarding **claims 25 and 75**, note the application of the glass/plastic composite film is in a light emitting coating display (see page 1, paragraph 1). Regarding **claims 26, 54, 62 and 76**, note the thickness of the polymer coating is between 1 μm and 100 μm (see page 5, paragraph 6). Regarding **claims 27, 55 and 77**, note the glass film thickness is between 10 μm and 200 μm (see page 5, paragraph 5). Regarding **claims 28, 56 and 78**, note the glass film thickness is between 10 μm and 100 μm (see page 5, paragraph 5). Regarding **claims 29, 57 and 79**, note the thickness of the polymer coating is between 2 μm and 50 μm (see page 5, paragraph 6). Regarding **claims 34, 50 and 84**, note the composite film is inherently temperature stable up to 180°C in the case of short term heating, since it is made up of similar materials and is produced in a similar manner to that of the present invention. Regarding **claims 35, 51 and 85**, note the composite film is inherently temperature stable up to 200°C in the case of short term heating, since it is made up of similar materials and is produced in a similar manner to that of the present invention.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 2-4, 8, 10, 30-33, 38-40, 44, 46-48, 58, 59, 64-66, 70, 72 and 80-83** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burroughes et al (GB 2 335 884).

Burroughes et al. discloses the present invention as shown above. However, Burroughes et al. fails to teach the specific ranges for the waviness and roughness of the surface of the composite film and the specific ranges for the modulus of elasticity of the polymer layer as recited in claims 2-4, 8, 10, 30-33, 38-40, 44, 46-48, 58, 59, 64-66, 70, 72 and 80-83. Burroughes et al. does, however, teach the composite film being made up of similar materials and being produced in a similar manner compared to that of the present invention (see page 6). Therefore, the optimum ranges for the waviness, roughness and modulus of elasticity would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired end results as shown by Burroughes et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the composite film of Burroughes et al. with the specific ranges for roughness and waviness and modulus of elasticity as recited in claims 2-4, 8, 10, 30-33, 38-40, 44, 46-48, 58, 59, 64-66, 70, 72 and 80-83, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in absence of showing unexpected results. MPEP 2144.05 (II).

8. **Claims 13, 36, 53, 60, 74 and 86** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burroughes et al. (GB 2 335 884) in view of Dumbaugh (US 4,824,808).

Burroughes et al. discloses the present invention as shown. However, Burroughes et al. fails to disclose the glass consisting of an alkali free borosilicate glass. Dumbaugh teaches that it is old and well-known in the art to have alkali free borosilicate glass (see col. 4, line 45) for the purpose of producing a glass substrate to be used in electronic components and devices such as liquid crystal displays. Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the glass substrate in Burroughes et al. to consist of alkali free borosilicate glass as suggested by Dumbaugh in order to form a glass substrate to be used in electronic components and devices such as liquid crystal displays.

Response to Arguments

9. Applicant's arguments with respect to claims 1-13 and 25-62 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571)272-1501.

The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Catherine Simone
Examiner
Art Unit 1772
November 8, 2004


HAROLD PYON
SUPERVISORY PATENT EXAMINER
11/12

11/00/04